

SURF Student Colloquium: Tuesday - August 8, 2006
 Plenary Session: Green Auditorium, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
9:00A	William Jeffrey	NIST Director	Welcome	
MODERATOR: Kathleen Cain Gettysburg College				
9:10A	Amelia Wright	Johns Hopkins University	Wind Load Factors for Tall Buildings	BFRL
9:40A	Michael Forbes	Massachusetts Institute of Technology	Combinatorial Designs and their Impact on Software Testing	ITL
10:10A	Christopher Wahl	State University of New York, Geneseo	Investigation of Source Detection Algorithms for Radiation Portal Monitors	PL
10:40A	Bryant Walker	Rensselaer Polytechnic Institute	Behavior of Single Walled Carbon Nanotubes in Aqueous Suspension	MSEL
11:10A	BREAK			
MODERATOR: Kathleen Cain Gettysburg College				
11:25A	Thomas Walker	Pennsylvania State University	Measurement and Modeling of Contact Potential Difference with Scanning Kelvin Force Microscopy	EEEL
11:55A	Jacqueline Kenney	Loyola College in Maryland	Performance Analysis of 3D Flash LADAR	MEL
12:25P	Jacqueline Brazin	Massachusetts Institute of Technology	Fabrication and Characterization of Polymer Microsphere Test Standards for Trace Explosive and Narcotic Detection Portal Systems	CSTL
12:55P	LUNCH - SURF Directors and Special Guests (Employee Lounge)			

SURF Student Colloquium: Tuesday - August 8, 2006
 Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Paul Angiolillo Saint Joseph's University				
2:30P	Tanya Ostapenko	Gettysburg College	Temperature Corrections in Industrial Irradiation Processing	PL
2:50P	Nora Graneto	St. Joseph's University	A Study of a New Colorimetric Radiation Dosimeter	PL
3:10P	Stephanie Cope	Georgetown University	Simulating Heat Transfer in a Water Calorimeter for Use in Radiation Dose Standardization	PL
3:30P	BREAK			
MODERATOR:Forrest Schultz University of Wisconsin, Stout				
3:40P	Kathryn Noonan	College of Holy Cross	The Development of a Raman Standard for 633 nm Excitation Source	CSTL
4:00P	Nathanial Doane	St. Mary's College of Maryland	Quantification of Capsaicinoids in Hot Peppers Using Liquid Chromatography / Mass Spectrometry	CSTL
4:20P	Jose Santana	University of Connecticut	Characterization of Synephrine in Dietary Supplements Containing Bitter Orange	CSTL

SURF Student Colloquium: Tuesday - August 8, 2006
 Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Edwin Walker Southern University				
2:30P	Danielle Ramos	University of Nevada, Reno	Comparison of Density Instruments for Use in Commodity Package Testing	MEL
2:50P	Andrew Schaumberg	University of Wisconsin, Platteville	Exploring Millennial's Information Habits and Expectations of Library Resources	MEL
3:10P	Sam Hong	Boston University	Polyelectrolyte Deep Eutectic Solvents	MSEL
3:30P	BREAK			
MODERATOR: Walid Taha Rice University				
3:40P	Jennna Yocklovich	Millersville University of Pennsylvania	Dynamic Web-Based Repository for Healthcare Standards Information	ITL
4:00P	Justin Manweiler	College of William and Mary	NIST Conformance Testing Framework Promotes HL7 Compliance	ITL
4:20P	Jeffrey Meister	University of Maryland, College Park	Software Assurance Metrics and Tool Evaluation to Enhance Software Security	ITL

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Paul Angiolillo Saint Joseph's University				
9:00A	Craig Huffer	Indiana University, Bloomington	Surface Barrier Detector Properties for the Precise Neutron Flux Measurement	PL
9:20A	Daniel Campbell	Hamilton College	Neutron Beam Collimation Using Monte Carlo Simulation Techniques	PL
9:40A	William Ames	College of William and Mary	Measurements of Radon Diffusion Coefficient with NIST Radon Standard as a Source	PL
10:00A	Michael Santiago	University of Puerto Rico, Mayaguez	Radiolabeling of p-SCN-Bn-DOTA with Po-210 for Applications in Angiogenesis-Targeted Radioimmunotherapy: HPLC Method Development	PL
10:20A	BREAK			
MODERATOR: Paul Lett Physics Laboratory SURF Director				
10:30A	Eric Peterson	Appalachian State University	Plasma Oxidation of Ultra-Thin Aluminum Layers for Magnetic Tunnel Junctions	PL
10:50A	Azure Hansen	State University of New York, Stony Brook	An Optical Vortex-Based Azimuthal Lattice for a Bose-Einstein Condensate	PL
11:10A	Carrie Walker	University of Southern Mississippi	Photobleaching of Cy3 in Single-Molecule Fluorescence Studies	PL
11:30A	Kristen Lemons	Williams College	Obtaining Slow Light Via Electromagnetically Induced Transparency	PL
11:50A	Alexandra Schnieders	University of Southern California, Los Angeles	Rubidium Tools: Atomic Beam Production and Quantum State Manipulation	PL
12:10A	LUNCH			

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Paul Angiolillo Saint Joseph's University				
1:30P	Robyn Dunstan	Elizabethtown College	Suppression of Coherence in Electron Microscopy	PL
1:50P	Ashwin Rastogi	College of William and Mary	Quantum Mechanics of a Magnetic Field Generated by Non-Abelian Vector Potential	PL
2:10P	Roger Brown	Colorado School of Mines	Quantum Phase Transitions in the Hubbard Model	PL

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Forrest Schultz University of Wisconsin, Stout				
9:00A	Katherine Travis	Smith College	Auto-Generation of C-Code to Improve Efficiency of a PDE Solver Written in Python	MSEL
9:20A	Tom Shaffner	Virginia Military Institute	Spin Diffusion Transistors	MSEL
9:40A	Reza Rock	University of Delaware	Contrast Enhancement and Applications of Graphite Superlattice Modeling	MSEL
10:00A	Kevin Baler	Cornell University	In Search of Anisotropy in Cobalt Nanoparticles	MSEL
10:20A	BREAK			
MODERATOR: Edwin Walker Southern University				
10:30A	Coral Cruz	University of Puerto Rico, Mayaguez	The Effectiveness of Combinatorial Methodology on the Exploration of TaAlN Metal Gate Electrodes on HfO ₂	MSEL
10:50A	Julian Guzman	University of Florida	Bi ₂ O ₃ ,Al ₂ O ₃ ,Nb ₂ O ₅ Equilibrium Phase Diagram	MSEL
11:10A	Phyllis Xu	Massachusetts Institute of Technology	High Resolution X-Ray Diffraction: Characterizing Aspects of a NIST SRM	MSEL
11:30A	Edward Nie	University of Pennsylvania	Application of Thin-Film NiSi Kinetics to Nanocalorimetry of NiSi	MSEL
11:50A	David Henann	State University of New York, Binghamton	How to Pull a Nanowire: Developing Nanomechanical Testing Configurations	MSEL
12:10A	LUNCH			

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Forrest Schultz University of Wisconsin, Stout				
1:30P	Sarah Cotts	College of William and Mary	Interfacial Molecular Charge Transport in Monolayer Films	CSTL
1:50P	Ryan Vierling	University of Tulsa	Probing the Molecular-Level Understanding of Protein Adsorption to Surfaces	CSTL
2:10P	Jose Garcia	InterAmerican University of Puerto Rico, Bayamon	Electrical and Chemical Characterization of Multi-walled Carbon Nanotubes Coated in Streptavidin	CSTL
2:30P	James Tabat	University of Minnesota	Testing Long Term Calibration Stability of Flow Meters	CSTL
2:50P	BREAK			

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room C, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Richard Eastman Loyola College of Maryland				
9:00A	Iris Howley	Drexel University	Developing a Robot Classification System for Urban Search and Rescue	MEL
9:20A	Shima Eshraghi	University of Maryland, College Park	Measuring Cognitive Abilities of Artificial Systems	MEL
9:40A	Lauren Maldonado	University of North Carolina, Charlotte	Micromanipulation Technology	MEL
10:00A	Carolyn Denomme	Pennsylvania State University	Towards the Redefinition of the Kilogram: Magnetic Levitation of Mass Standards	MEL
MODERATOR: Chiara Ferraris Building & Fire Research Laboratory SURF Director				
1:30P	Brian Morgan	Gettysburg College	Effects of Surface Roughness on Instrumented Indentation	BFRL
1:50P	Joshua Goldman	State University of New York, Binghamton	Mechanisms of Water-Induced Adhesion Loss	BFRL
2:10P	Chi T. Do	Montgomery College	Microstructure and Thermal Conductivity	BFRL
2:30P	Ryan Travers	University of Maryland, College Park	Positive Pressure Ventilation	BFRL

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room D, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Walid Taha Rice University				
9:00A	Benjamin Zoller	University of Maryland, College Park	Developing a Computer Forensics Tool to Output a Windows Registry Dataset to an XML-Based Format	ITL
9:20A	Jameela Hudson	University of Toledo	Improving Voting Standards	ITL
9:40A	Jarred Ramo	Cornell University	Spatial Statistics for Carbon Nanotubes	ITL
10:00A	Emily Fortuna	Rice University	<i>Ontolex</i> : Extending the Computational "Basic Reference Model" for Second Language Learning	ITL
10:20A	BREAK			
MODERATOR: David Newell Electronics & Electrical Engineering Laboratory SURF Director				
10:30A	Robert Sorbello	Villanova University	Modeling of Aluminum and Copper Interconnect Features with Deep-Sub-Micrometer CDs at GHz Frequencies	EEEL
10:50A	Scott Shackelford	University of Maryland, Baltimore County	The Hall Effect	EEEL
11:10A	Chad Althouse	Pennsylvania State University	Electrical Measurements of Self Assembled Monolayers	EEEL
11:30A	Sarah Hackenmueller	Gustavus Adolphus College	Towards Protein Resistance of Silicon	EEEL
11:50A	James Royer	University of Maryland, College Park	Solution Processed Small Molecule Thin Film Transistors	EEEL
12:10A	LUNCH			

SURF Student Colloquium: Wednesday - August 9, 2006
 Parallel Session: Lecture Room D, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Lisa Fronczek Manufacturing Engineering Laboratory SURF Director				
1:30P	Cody Dunne	Cornell College	Human Computer Interfaces of Tomorrow: How Science Fiction Has Become Reality	MEL
1:50P	Sam Toutouchian	Moorpark College	Literature Study of the Supply Change of Medical Devices	MEL
2:10P	Siddharth Bhaskar	Princeton University	Towards a Simple, Effective Database of Medical Codes	MEL
2:30P	David Willoughby	University of North Carolina, Charlotte	Physics Based Modeling of Machining	MEL

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Said Shokair University of California, Irvine				
9:00A	Matt Dopkiss	Miami University (Ohio)	Performance Comparisons of InGaAs, Extended InGaAs, and Short-Wave HgCdTe Detectors Between 1 μm and 2.5 μm	PL
9:20A	Dylan Erwin	University of Maryland, College Park	Light Polarization and Spatial Light Modulation	PL
9:40A	Daniel Williams	University of Nebraska-Lincoln	High Contrast Images Made Possible by Adjustment of Illumination in the Visible and Near-Infrared Light Regions	PL
10:00A	Michael Gorbach	Swarthmore College	Monte Carlo Modeling of Magnetic Cobalt Nanoparticles	PL
10:20A	BREAK			
MODERATOR: Marc Desrosiers Physics Laboratory SURF Director				
10:30	Evan Crawford	Yale University	Developing a Rapid LSC Screening Method for ^{90}Sr Contamination in Urine	PL
10:50	John Shen	California Institute of Technology	Investigation of Hot Particles in Rocky Flats Soil Material	PL
11:10	Kevin Cheng	Pennsylvania State University	Evaluation of the Stability of NIST Natural-Matrix Radionuclide SRM	PL
11:30	Steven Anton	University of Delaware	Calibration of Radioactive Seeds Used in Brachytherapy	PL
11:50	L. Bailee Christopher	Appalachian State University	Modeling a Medical Particle Accelerator Using Monte Carlo Simulation Methods	PL
12:10	LUNCH			

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Said Shokair University of California, Irvine				
1:30P	Nelson Green	Kansas State University	Thermophoretic Sampling of Soot from a Diffusion Spray Flame	CSTL
1:50P	Cresten Mansfeldt	University of Minnesota	The Fate of Nanomaterials in Water Treatment	CSTL
2:10P	Rhyan Maditz	University of Maryland, College Park	Trace Detection of Illicit Narcotics Utilizing Ion Mobility Spectrometry	CSTL
2:30P	Kristin Wong	Santa Monica College	Determination of Caffeine and Caffeine-Related Analogs in Candidate NIST Green Tea SRMs	CSTL

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Forrest Schultz University of Wisconsin, Stout				
9:00A	Jennifer Gehret	University of Maryland, College Park	Measuring DNA Microarray Performance	CSTL
9:20A	Fred Nawabi-Ghasimi	St. Mary's College of Maryland	Quantitative and Qualitative Analysis of the Uptake of Polystyrene Microspheres by Human B-Lymphocytes	CSTL
9:40A	Ashley Keeney	Mount St. Mary's College	Surface Derivatization of Thermoplastics for Increased Hydrophilicity	CSTL
10:00A	Daniel Clayton	Davidson College	Optimization, Quality Assurance, and Quality Control in Neutron Detector Development	CSTL
10:20A	BREAK			
MODERATOR: Edwin Walker Southern University				
10:30A	Andrew Gardner	State University of New York, Binghamton	Adhesion and Release in Nanoimprint Lithography	MSEL
10:50A	Shauna Dorsey	University of Maryland, College Park	Three-Dimensional Imaging of Polymer Scaffold Gradients	MSEL
11:10A	Joseph Sit	University of Maryland, College Park	Assaying Peptide Gradients with Epifluorescence Microscopy	MSEL
11:30A	Adrienne Smith	Northwestern University	Immuno-Fluorescent Staining for Telomerase: Cell Population Expression Variability	MSEL
11:50A				
12:10A	LUNCH			

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Nathaniel Szymczak, University of Oregon Charlie Glinka, NIST Center for Neutron Research				
1:30P	Yevgeniya Turov	University of Oregon	Self-Assembly of Fluorinated Surfactants in Ionic Liquids	MSEL
1:50P	Edward Schwartz	Millersville University of Pennsylvania	Application of Parallel Tempering to Neutron Reflectometry Data	MSEL
2:10P	Gina Polimeni	Kennesaw State University	Using Small Angle Neutron Scattering to Investigate the Phase Behaviors of Mixed Lipid Systems	MSEL
2:30P	Edwin Schwalbach	Illinois Institute of Technology	Examining Lipid Bilayer Molecular Dynamics by Neutron Scattering and Molecular Dynamics Simulations	MSEL
2:50P	Michelle Kinahan	University of Florida	Characterization and Optimization of Tethered Bilayer Lipid Membranes	MSEL

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room C, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: David Newell Electronics & Electrical Engineering Laboratory SURF Director				
9:00A	Jianzhuang (Jay) Huang	State University of New York, Binghamton	Computer-Controlled Instrumentation for Silicon Carbide Power Device Long-Term Reliability Test Circuit	EEEL
9:20A	Joshua Buck	University of Tulsa	Microhotplate Characterization and SoC Development	EEEL
9:40A	Victoria Yan	University of Maryland, College Park	Converting Young's Modulus MATLAB Programs to Web-Based Data Analysis Sheets	EEEL
10:00A				
10:20A	BREAK			
MODERATOR: Said Shokair University of California, Irvine				
10:30A	Catherine Phan	University of California, Irvine	Redefining the SI Kilogram and Implementing a Magnetic Levitation Balance	MEL
10:50A	William Miller	University of Maryland, Baltimore County	Making Your Life Easier; Advancing Smart and Wireless Transducer Interface Standards	MEL
11:10A	Jordan Peck	State University of New York, Binghamton	A Study of Electrochemical Joining for Micro-Wires	MEL
11:30A	Jereme Gilbert	University of North Carolina, Charlotte	Determining the Location of the Hip Joint Center: Investigation of Algorithms and Factors for Location	MEL

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room C, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Jeff Campbell University of Maryland, Baltimore County				
1:30P	Christine McKay	University of Maryland, College Park	A User Interface to a Distributed Computing Environment	ITL
1:50P	Guy Cao	University of Maryland, College Park	Implementation of Additional Capabilities of e-Fits Using Java Applet	ITL
2:10P	John Shiu	University of Maryland, College Park	Examining Sensor Location Algorithms from a Different Angle	ITL

SURF Student Colloquium: Thursday - August 10, 2006
 Parallel Session: Lecture Room D, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: Dr. Francine Amon Building and Fire Research Laboratory				
9:00A	Matthew Strawbridge	Salisbury University	A Fourier Transform Analysis of Human Images for Evaluation of Thermal Imaging Cameras	BFRL
9:20A	Tabitha Huntemann	St. Mary's College of Maryland	Development of a Computer Based Fire Fighter Training Tool	BFRL
9:40A	Jeff Keslin	University of Maryland, College Park	Validation of Stereoscopic PIV for Large-Scale Fire Induced Flow Measurements	BFRL
10:00A	Hillary Sackett	Smith College	Development of 3-D Geometries for Respirator Flow Field Modeling	BFRL
10:20A	BREAK			
MODERATOR: David Newell Electronics & Electrical Engineering Laboratory SURF Director				
10:30A	Megan Ellis	University of Connecticut	Collagen Matrix Micropatterning Using Localized Heat	EEEL
10:50A	Shannon Burke	University of Tulsa	Optimizing and Characterizing Systems for Microchip-Based Microwave-Heated PCR	EEEL
11:10A	Amelia Fillipo	Millersville University of Pennsylvania	Ph-ISFETs in Microfluidics: Qualitative Analysis of Variance and Comparison with Fluorescent pH Indicator	EEEL
11:30A	Tanya Aranchuk	University of Mississippi	Electrostatic Sensing of DNA Using Field Effect Transistors	EEEL

SURF Student Colloquium: Special Presentations

DATE	SPEAKER	UNIVERSITY	TITLE	LAB
July 20	Jennifer Wiley	University of Maryland, College Park	Large Eddy Simulation of Partially-Premixed Combustion Following Ignition of a Fuel Vapor Cloud	BFRL
July 21	Billy Medina	Polytechnic University of Puerto Rico	File Change Analysis <i>OS Startup</i> (System Boot)	ITL
August 7	Daniel Schirmer	Colorado School of Mines	Phases of Ultra Cold Gases in the Fermi-Bose Hubbard Model	PL

SURF STUDENT



Farewell Pizza Party



12:00N



Friday, August 11, 2006



Employees' Lounge



